



# HEXAGON TRANSPORTATION CONSULTANTS, INC.



## 3265 El Camino Real Residential Development



### Transportation Demand Management (TDM) Plan

Prepared for:

**The City of Palo Alto on Behalf of Half Dome Capital LLC**

October 29, 2024



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# 1.

## Introduction

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This Transportation Demand Management (TDM) plan has been prepared for the proposed residential development at 3265 El Camino Real in Palo Alto, California. The development will provide less parking than required, so a TDM plan is required per the City of Palo Alto Municipal Code. TDM is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, greenhouse gas emissions, and air pollution problems. The purpose of a TDM plan is to promote more efficient utilization of existing transportation facilities, and to ensure that new developments are designed to maximize the potential for sustainable transportation usage.

### Project Description

The project site is located along the El Camino Real corridor at 3265 El Camino Real in Palo Alto, California (see Figure 1). The project will demolish the vacant building and construct 55 affordable housing units in a 6-story building. There would be 30 studio units and 25 one-bedroom units.

In comparison to the Affordable Housing Incentive Program (AHIP) in Section 18.32 of the Zoning Code, the project would be required to provide 0.75 space per unit, or 42 parking spaces. The project will provide 31 parking spaces (29 stacker parking spaces and 1 ADA parking space) in a ground level parking structure, which is 11 parking spaces (26 percent) fewer than would be required in comparison to the AHIP. In addition, the City's zoning code, Section 18.52.040 states that multifamily housing developments require one space per studio and one-bedroom units and two spaces per two- or more bedroom units, which would require a total of 55 parking spaces. Per the Zoning Code Section 18.52.030(i), a TDM plan is required for all projects that request a parking reduction.

### Project Trip Generation and Trip Reduction Target

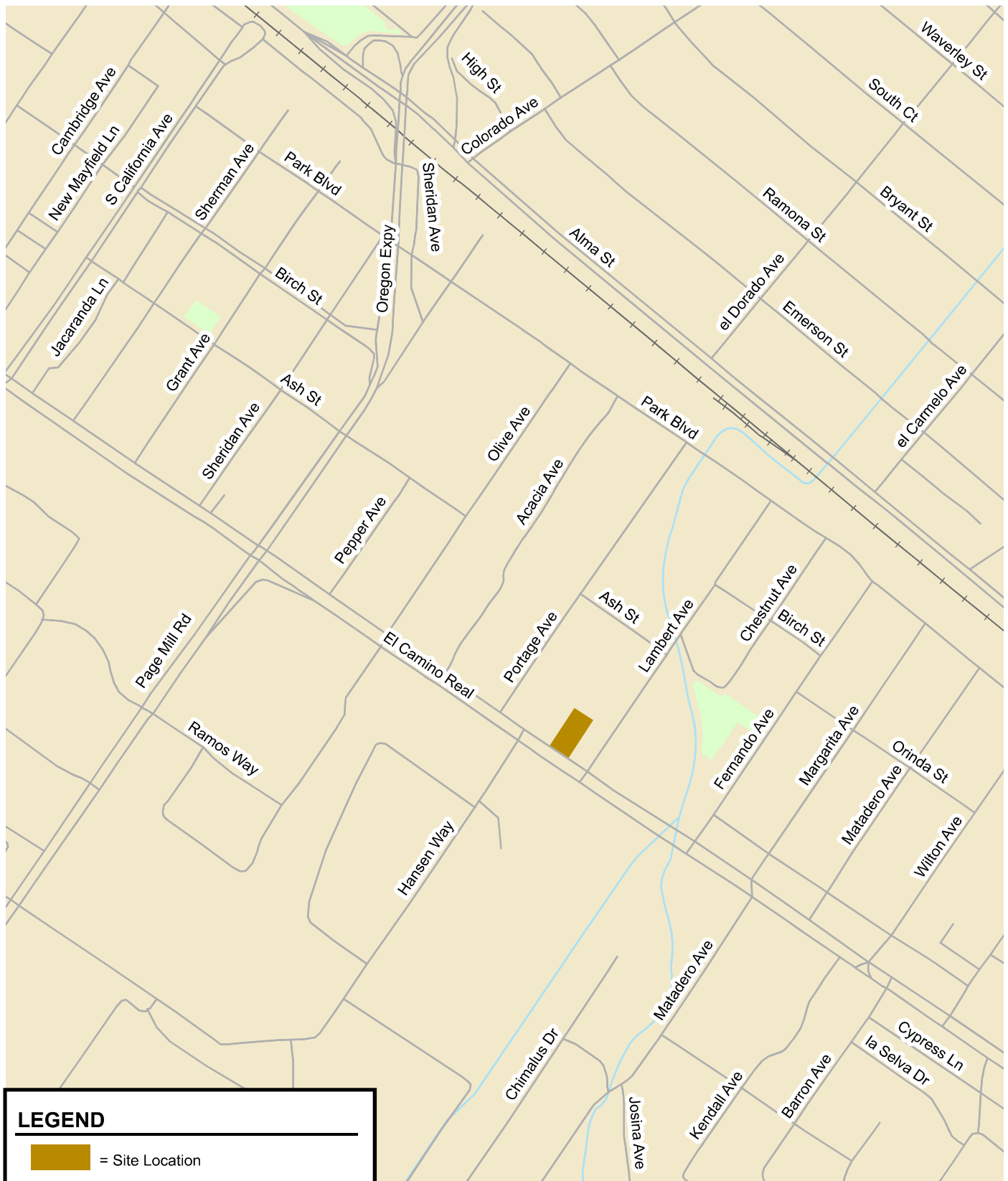
Trip generation resulting from the development was estimated using the trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11th Edition* (2021). Trips that will be generated by the proposed development were estimated using the ITE trip rates for "Multifamily Housing (Mid-Rise)" (Land Use 221). The "Multifamily Housing (Mid-Rise)" ITE land use category includes apartments, townhouses, and condominiums with three to 10 floors of living space. The project would build five floors of residential units. Although the ITE Manual includes an "Affordable Housing" category, there are only two studies included, so the rates could be inaccurate.

Based on the published trip rates, the proposed residential development is expected to generate 20 trips during the AM peak hour and 21 trips during the PM peak hour (see Table 1). Because the project is located within the El Camino Real corridor, the project has a required minimum trip reduction of 30 percent through TDM. With the required 30 percent trip reduction, the vehicle trips generated by the project should not exceed 14 trips during the AM peak hour and 15 trips during the PM peak hour.

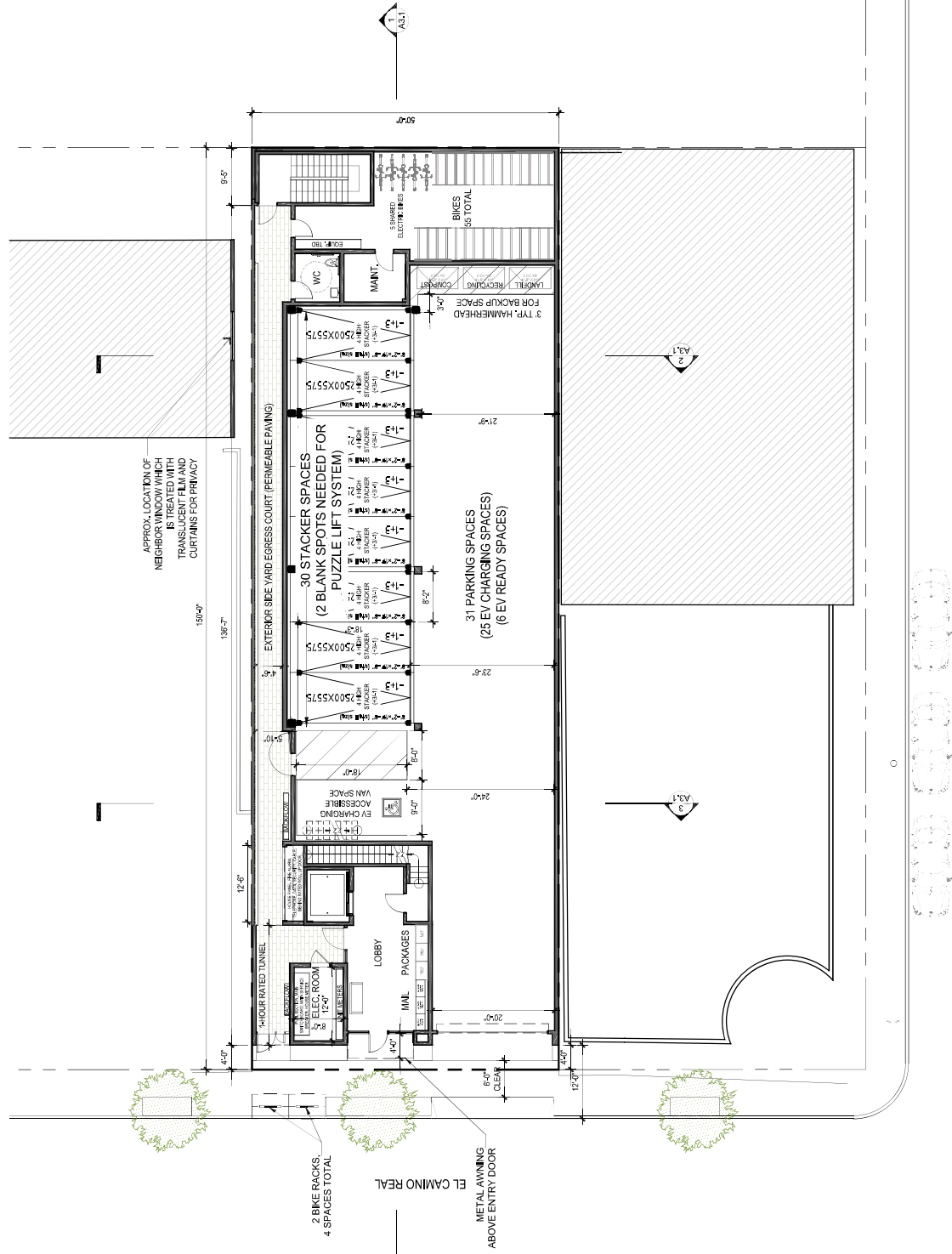
**Table 1**  
**Project Trip Estimates**

Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips			Rate	Trips		
					In	Out	Total		In	Out	Total
<b>Proposed Land Uses</b>											
Multi-Family Housing <sup>1</sup>	55 d.u.	4.540	250	0.370	5	15	20	0,390	13	8	21
TDM Reduction (30%)			-75		-2	-4	-6		-4	-2	-6
<b>Net Project Trips</b>			<b>175</b>		<b>3</b>	<b>11</b>	<b>14</b>		<b>9</b>	<b>6</b>	<b>15</b>
<u>Source:</u> ITE Trip Generation Manual, 11 <sup>th</sup> Edition 2021. d.u. = dwelling unit <sup>1</sup> Average rate used for Multi-Family Housing (Mid-Rise) (Land Use 221).											





**Figure 1**  
**Project Site Location**



## Figure 2 Site Plan



## 2. Existing Transportation Facilities

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This chapter describes the existing transportation facilities and services near the project site that can be utilized to reduce parking demand.

### Transit Services

The project site is well-served by transit within a quarter mile. Existing transit services in the study area are provided by the Santa Clara Valley Transportation Authority (VTA), the Alameda-Contra Costa Transit District (AC Transit), and Stanford University. VTA operates bus and light-rail transit (LRT) services in Santa Clara County, AC Transit operates Dumbarton Express bus routes, and Stanford University provides free Stanford Marguerite shuttles between the campus and various points of interests that serve the project area. The VTA, Dumbarton Express, and Stanford Marguerite bus and shuttle routes in the project vicinity and the bus/shuttle stops near the project site are summarized in Table 2 and shown on Figure 3.

VTA Local Route 22 and Stanford Shuttle Route Shopping Express (SE) serves the project vicinity with the closest bus stops (310 feet from the project site) located on El Camino Real and Hansen Way.

### Caltrain

The California Avenue station is approximately 0.9 mile from the project site. Although it is not within comfortable walking distance, it can be accessed via bike lanes on Park Boulevard. From the site, bicyclists could use Portage Avenue, Ash Street, and Lambert Avenue to connect to bike lanes on Park Boulevard. Although there are no bicycle facilities on these streets, these streets are low-volume streets with slow travel speeds. More advanced bicyclists may use El Camino Real and Olive Avenue.

Caltrain provides frequent commuter train service between San Jose and San Francisco seven days a week, with stops at most cities in between. During the AM peak period between 7:00 and 10:00, there are five northbound trains (two limited-stop trains and three local trains) and six southbound trains (three limited-stop trains and three local trains) serving the California Avenue station. During the PM peak period between 4:00 and 7:00, there are six northbound trains (three limited-stop trains and three local trains) and six southbound trains (three limited-stop trains and three local trains) serving the California Avenue station. Bicycles are permitted on Caltrain, and there are bicycle racks and bicycle lockers available at the California Avenue station.



**Figure 3**  
**Existing Transit Services**

**Table 2**  
**Existing Transit Service**

Route	Route Description	Weekday Hours of Operation	Headways <sup>1</sup> (minutes)	Nearby Bus Stops/Stations	Walking Distance from Nearest Stop to Project Site (feet)
<b><u>VTABus Route</u></b>					
Frequent Route 22	Palo Alto Transit Center - Eastridge	4:15 AM - 3:00 AM (next day)	15-17	El Camino Real and Hansen Way	310
Local Route 89	California Avenue Caltrain - Palo Alto VA Hospital	6:30 AM - 6:15 PM	18-23	El Camino Real and Oregon Expy/Page Mill Rd	1,790
Express Route 101	Camden and Hwy 85 - Stanford Research Park	6:15 AM - 8:18 AM	55-60	Hansen Way south of El Camino Real	785
Express Route 102	South San Jose - Stanford Research Park	5:47 AM - 6:47 PM	35	Hansen Way south of El Camino Real	785
Express Route 103	Eastridge - Stanford Research Park	4:55 AM - 6:19 PM	60	Hansen Way south of El Camino Real	785
Express Route 104	Milpitas BART - Stanford Research Park	6:07 AM - 5:39 PM	30-55	El Camino Real and Oregon Expy/Page Mill Rd	1,790
<b><u>Dumbarton Express Bus Route</u></b>					
DB1	Union City BART Station - Stanford University	5:10 AM - 8:30 PM	30	El Camino Real and Oregon Expy/Page Mill Rd	1,790
<b><u>Stanford Marguerite Shuttle<sup>2</sup></u></b>					
Research Park	Palo Alto Transit Center - Stanford Research Park	6:53 AM - 10:12 AM 3:17 PM - 7:02 PM	17-18	El Camino Real and Oregon Expy/Page Mill Rd	1,790
Shopping Express	Palo Alto Transit Center - San Antonio Shopping Center	3:00 PM - 10:50 PM	60	El Camino Real and Hansen Way	310
<b>Notes:</b> 1. Headways during weekday peak periods as of November 2023. 2. Operated by Stanford University. It provides free transportation connections between the Palo Alto Transit Center and the Stanford Research Park in the project vicinity.					

## Bicycle Facilities

The bicycle facilities that exist within one-half mile of the project site (see Figure 4) include striped bike lanes (Class II bikeway) and shared bike routes/boulevards (Class III bikeway). Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Bike routes are signed bike routes where bicyclists share a travel lane with motorists.

Striped bike lanes are present along the following street segments:

- Park Boulevard, north of Lambert Avenue
- Hansen Way, for the entire street
- Page Mill Road, east of Miranda Ave
- California Avenue, between Hanover Street and El Camino Real

Bike routes are typically designated with signs and/or sharrows (shared-lane markings). Bike routes are appropriate for low-volume streets with slow travel speeds, especially those on which motorist volumes are low enough that passing maneuvers can use the full street width, on roadways with bicycle demand but without adequate space for bike lanes, and as “gap fillers” where there are short breaks in bike lanes due to right-of-way constraints. Bike routes are present along the following street segments, according to the City’s Bicycle and Pedestrian Transportation Plan (July 2012), the Mid-Peninsula Bicycle Map, and Google Earth:

- California Avenue, east of El Camino Real
- Margarita Avenue, for the entire street, and
- Park Boulevard, between Lambert Avenue and Margarita Avenue.

Caltrans began construction of the bike lanes along El Camino Real between south of SR 237 and Sand Hill Road in Spring 2024. The project is expected to be completed by Fall 2025.

## **Pedestrian Facilities**

A complete network of sidewalks is present along the streets in the vicinity of the project site, including El Camino Real, Portage Avenue, Hansen Way, and Lambert Avenue. Crosswalks with pedestrian signal heads are located at the signalized intersections in the project area, except on the south leg of the El Camino Real/Portage Avenue intersection. Overall, the existing network of sidewalks and crosswalks provides pedestrians with safe routes to transit services and other points of interest in the project vicinity.





**Figure 4**  
**Existing Bicycle Facilities**

### 3.

## Proposed TDM Measures

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This chapter describes TDM measures that are proposed for the residential project. These TDM measures include planning and design measures related to the attributes of the site location, site design, on-site amenities, and TDM programs. The TDM programs, including services, incentives, and actions, will encourage residents to forego a personal vehicle, lessening the parking demand on site. Table 3 presents a summary of the TDM measures in this plan. An indication of who will have primary responsibility for implementing each measure is also shown on the table.

The California Air Pollution Control Officers Association (CAPCOA) December 2021 report, *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* quantifies the reduction of each TDM measure by vehicle miles traveled (VMT). For this report, it is assumed that the VMT reduction percentage equals the reduction in trip generation. Based on this handbook's projections, the TDM program will exceed the required 30 percent reduction in trip generation (see Table 3).

### TDM Administration and Promotion

#### Transportation Coordinator

The applicant will appoint a Transportation Coordinator who will be the primary contact with the City and will be responsible for implementing and managing the TDM plan. The Transportation Coordinator will be a point of contact for residents/tenants when TDM-related questions arise and will be responsible for ensuring that residents are aware of all transportation options and how to fully utilize the TDM plan. The Transportation Coordinator will provide the following services and functions to ensure the TDM plan runs smoothly:

- Provide transportation information brochures to new residents (see Appendix A for example. The official brochure will be determined in coordination with the City).
- Provide trip planning assistance and/or ride-matching assistance to residents who are considering an alternative mode.
- Manage resident travel surveys. The results will be used to determine whether the implemented TDM measures are effective and whether new TDM measures should be implemented.



## Online Transportation Kiosk

This TDM plan includes establishing an “online kiosk” with transportation information that residents could access from their smart phones, their homes, or anywhere else. This online kiosk will be available on the project website.

By allowing someone to have all the information about transportation alternatives and TDM programs available to them in a single online location, people will be more likely to refer to this information from home. The project developer or property manager will have responsibility for setting up and maintaining this online information center. This website will include the site-specific information about all the measures, services, and facilities discussed in this plan. In addition, this online information center will include:

- A summary of VTA, Caltrain, and nearby shuttle services and links to further information about their routes and schedules.
- Information about ride matching services (511.org and on-site ride matching) and the incentive programs available to carpools and vanpools.
- Information about services such as Uber, Lyft, and other on-demand transportation services.
- A local bikeways map and bicycling resources on 511.org.
- A link to the many other resources available in the Bay Area, such as Dadnab, the 511 Carpool Calculator, the 511 Transit Trip Planner, real-time traffic conditions, etc.
- Carshare services, such as Zipcar.

The online transportation kiosk will be developed after construction and before occupancy by the property manager.

**Table 3**  
**TDM Measures and Implementation Responsibilities**

TDM Measure	Implementation Responsibility	Max Reduction
Program Administration		
Designating a Transportation Coordinator	Property Manager	2.3% <sup>2</sup>
Online Kiosk/TDM Information Board <sup>1</sup>	Transportation Coordinator	
Transportation Information Brochures	Transportation Coordinator	
Participation in Transportation Management Association	Building developer	
Trip Planning Assistance	Transportation Coordinator	
Transit Elements		
Proximity to Transit	Site Location	5.5% <sup>3</sup>
Transit Subsidy	Property Manager	
Resources (schedules, route maps & other info)	Transportation Coordinator	
Ride Matching Programs		
Ridematching Assistance	Transportation Coordinator	8% <sup>4</sup>
Bay Area Carpool Program	Available to public	
Bicycle Facilities		
Bicycle Parking	Building Developer	0.06% <sup>5</sup>
Shared Electric Bikes	Property Manager	
Resources (bikeway maps & other info)	Transportation Coordinator	
Other On-Site Amenities		
Package Room	Building developer	--
High-Bandwidth Internet Connection	Building developer	--
Unbundled Parking	Building developer	15.7% <sup>6</sup>
Total Maximum Reduction:		31.6%

**Notes:**

1. The building developer will have initial responsibility for creating an online kiosk and appointing the Transportation Coordinator. After the building is occupied, the Transportation Coordinator will have ongoing responsibility for the online kiosk and various program elements.
2. The VMT reduction for the program administration measures reference Measure T-23 Provide Community-Based Travel Planning from the CAPCOA Handbook.
3. The VMT reduction for the subsidized or discounted transit program measure references Measure T-9 Implement Subsidized or Discounted Transit Program from the CAPCOA Handbook.
4. The VMT reduction for the subsidized or discounted transit program measure references Measure T-8 Provide Ridesharing Program from the CAPCOA Handbook.
5. The VMT reduction for the subsidized or discounted transit program measure references Measure T-22B Implement Electric Bikeshare Program from the CAPCOA Handbook.
6. The VMT reduction for the subsidized or discounted transit program measure references Measure T-16 Unbundled Residential Parking Costs from Property Costs from the CAPCOA Handbook.

## Transportation Information Brochure

The Transportation Coordinator will provide transportation information brochures to all new residents when they first occupy the building and ensure that residents are aware of the programs available to them. This brochure will include information about transit maps/schedules (VTA, Dumbarton Express, Stanford Marguerite Shuttle, and Caltrain), locations of bus stops and Caltrain station, ride matching

programs (511.org's RideMatching service, peer-to-peer matching apps, such as Scoop and Waze), 511.org's carpool/vanpool subsidy program, bike maps, and bicycle parking on-site. Also included in the brochure will be information regarding how to contact the Transportation Coordinator.

### Trip Planning Resources

There are several free trip planning resources that residents may not be aware of. Information on these services will be included in the online kiosk for new residents. These include:

- **511 Transit Trip Planner.** Online transit trip planning services are available to the greater San Francisco Bay Area through 511.org. Users enter their starting and ending points, and either the desired starting or ending trip time. The service can build an itinerary that best suits the user's preferences for the fastest trip, fewest transfers, or least walking.
- **Moovit.** A public transit app within the greater San Francisco Bay Area. Users enter their starting and ending points, and the service can build an itinerary that best suits the user's preferences for the fastest trip, fewest transfers, or least walking.

### Palo Alto Transportation Management Association (PATMA)

The applicant can join the privately funded and administered Palo Alto Transportation Management Association (PATMA). TMAs are associations of businesses, property owners, tenants, and cities that offer programs and services to give commuters alternatives to driving alone. The PATMA reduces traffic and parking demand by improving commuting through free Caltrain and bus passes for workers making less than \$70,000 annually, \$5 per day Bike Love rewards for biking to work, and subsidized after-work Lyft ride for those commuting less than 5 miles. These programs are offered to all employees within Palo Alto.

## Transit Elements

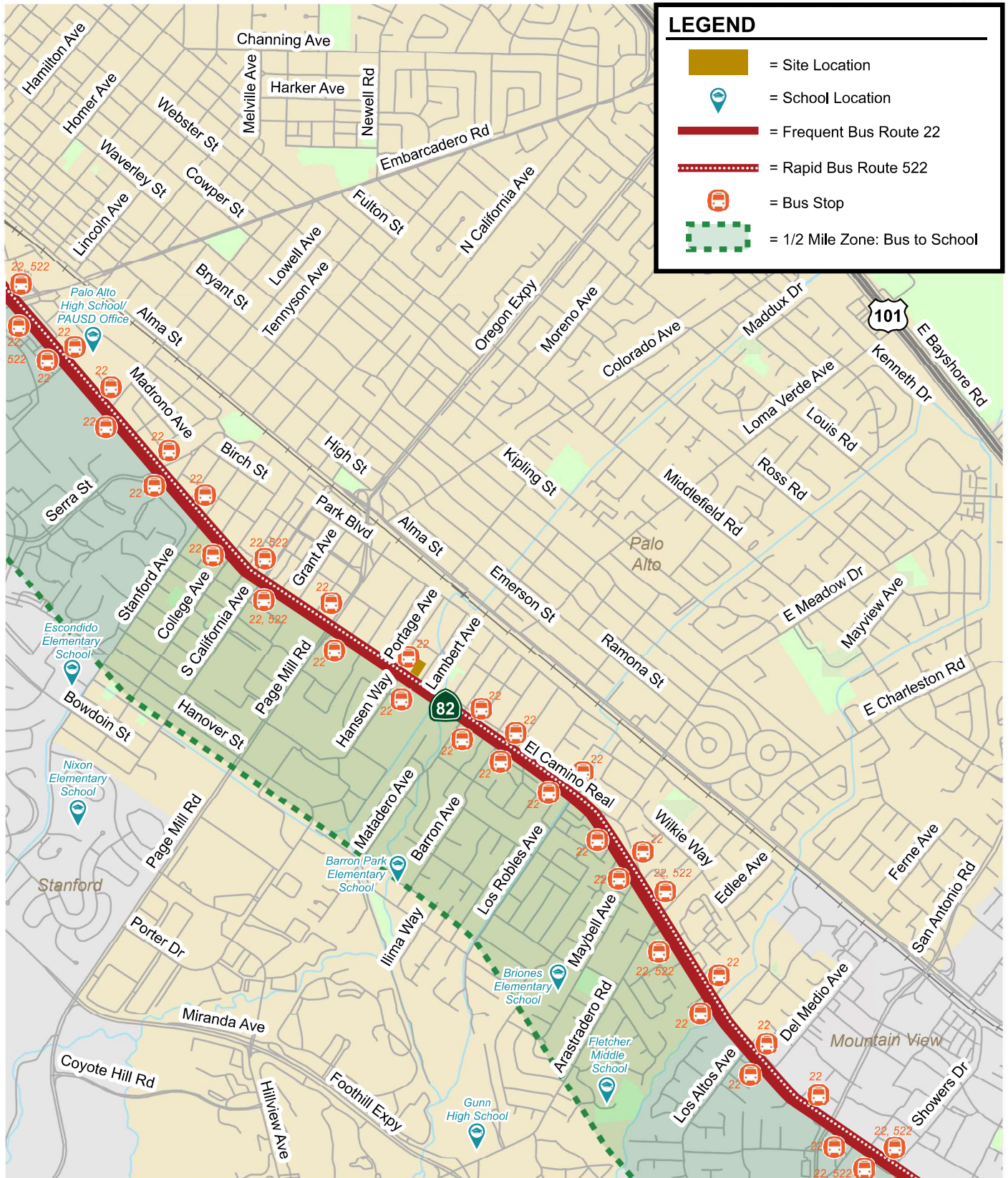
### Proximity to Transit Services

The project is located within an easy walking distance (310 feet or 1-minute walk) from the nearby bus stops serving Route 22 and Stanford Shuttle Route SE and within 0.3 mile (about a 7-minute walk) from the remaining bus stops.

The hope is that the tenants of the development will mostly be Palo Alto Unified School District (PAUSD) employees. With that in mind, Route 22 serves the PAUSD office and Palo Alto High School on El Camino Real, approximately 1.3 miles northwest of the development (8-12 minutes bus ride from the project site). In addition, there are 3 other district schools and/or district offices that are within 0.5 miles of the bus corridor along El Camino Real and 3 additional district schools and/or district offices that are within 2/3 mile of the bus corridor (see Figure 5). If a majority of tenants are PUSD employees, it is more likely that they would utilize the transit system and forego a personal vehicle.

Express Routes 101, 102, 103, 104, and Stanford Shuttle Route RP provide access to the Stanford Research Park and Stanford University. These routes would be convenient for both people who work in the nearby area and for those who want to access the convenient commercial uses.





**Figure 5**  
**Palo Alto Unified School District Sites**

## Landlord Purchased Transit Passes

Subsidized transit passes are an effective means of encouraging residents and employees to use transit rather than drive to work. Transit passes allow residents and employees to save money and avoid the stress of driving during commute periods. One element of this TDM plan is to provide residents with free transit passes (VTA SmartPass) to utilize public transit when commuting to and from the project site.

These passes typically provide unlimited transit rides on local or regional transit providers for a low monthly fee; a fee that is lower than the individual cost to purchase a pass, since a bulk discount is given.

With the VTA SmartPass program, the SmartPass is loaded on a Clipper smart card, allowing participants to also load fares from other transit agencies onto the card and use it across the San Francisco Bay Area. The SmartPass Institutional Portal allows transportation coordinators to administer the program and view usage reports. For developments with 1 – 2,999 participants, the SmartPass costs \$90 per participant per year for all VTA-operated bus services except VTA express bus (2024 rate). Without the SmartPass program, the cost for an annual pass for local routes is \$990 per year. With the VTA SmartPass program, the landlord pays a very low rate for 100% of its residents and employees, which gives all residents and employees a transit pass and may encourage some people to try transit who otherwise would not.

## Ride Matching Programs

The Bay Area Carpool Program service provides an interactive, on-demand system that helps commuters find carpools, vanpools, or bicycle partners. This free car and vanpool ride-matching service helps commuters find others with similar routes and travel patterns with whom they may share a ride. Registered users are provided with a list of other commuters near their employment or residential ZIP code, along with the closest cross street, email, phone number, and hours they are available to commute to and from work. Participants are then able to select and contact others with whom they wish to commute. The service also provides a list of existing carpools and vanpools in their residential area that may have vacancies.

Ride-matching assistance is also available through a number of peer-to-peer matching programs, such as Scoop and Waze Carpool, which utilize mobile apps to match commuters. These publicly available ride matching services benefit from a large database of commuters and may enable residents to locate people who may not live nearby or work on site but nevertheless share similar commute patterns.

## Bicycle Facilities

### Bicycle Parking

Providing secure bicycle parking encourages bicycle commuting and reduces the need for a vehicle. The project will provide 55 long-term bike parking spaces to be covered and lockable. The long-term bicycle parking spaces will be located in the northeast corner of the site, accessible from El Camino Real and along the southern border of the site. The project will also provide 4 short-term bike parking spaces near the building entrance.



## Shared Electric Bicycles

The project will include 5 shared electric bicycles for residents to use to shop at the nearby grocery stores along El Camino Real and California Avenue. The shared bicycles will be located next to the long-term bicycle parking spaces. The shared bicycles will be adequately maintained by the property. The bicycles will be replaced if they are no longer viable.

The shared bikes will use a commercial bike sharing system (e.g., On Bike Share or similar) that allows for tenants to sign up using a mobile app, check out a bike, pay-as-you-go, and then return and lock. These systems track usage, location, and return. These systems also include a “mechanic app” that tracks maintenance needs.



These systems have racks, locks, and GPS tracking to ensure that tenants avoid misuse via pay-per-use, lock the bikes while in use, and return the bikes when done using. The owner will charge a minimal hourly fee to deter abuse of the shared resource. Given the early stage, an exact price is uncertain but is expected to be less than \$5 per hour (inflation adjusted over time).

The system will use electronic smart locks mounted to the front of the bike. The smart locks are used to dock the bike to the rack. The smart

locks use rechargeable batteries monitored by the software. The bike racks do not require any power or internet.



## Bicycle Resources

As part of the information available in the online kiosk and bike cafe discussed above, resources useful to cyclists will be included. For example, the local bikeways map will be posted for easy reference.

The following resources are available to bicycle commuters through 511.org. These resources will be noted on the project's online information center, in order to make residents aware of them.

- Bicycle maps
- Bicycle safety tips
- Information about taking bikes on public transit
- Location and use of bike parking at transit stations
- Information on Bike to Work Day
- Links to bicycle organizations

## On-Site Amenities

### Package Room

The project will provide a package area to store residents' package deliveries. The storage will be located next to the mailbox for easy access by the carriers and the residents. Sufficient package storage space enables residents to make on-line purchases conveniently, which could reduce vehicle ownership. Having goods delivered to residents reduces trips and the need for a vehicle as residents would not have to go off-site to obtain items.

### High-Bandwidth Internet Connection

The project will provide high-bandwidth internet capability for residents. Wireless connectivity supports teleworking, which reduces off-site trips to work and the need for a vehicle.

### Unbundling of On-Site Residential Parking

To encourage non-auto transportation methods and to reduce costs for residents, on-site residential parking will be unbundled from each living unit. Unbundled parking means separating the cost of parking from residential leases and allowing residents to choose whether to lease a parking space. This will allow residents without cars to rent a unit without having to pay for a parking spot. Parking spaces will be added to the leases only for tenants who desire parking. Unbundling of parking encourages residents to forego a second car or to have no car at all.

In the project area, El Camino Real currently allows on-street parking. However, as previously stated, bike lanes will be installed along El Camino Real, with an expected completion in Fall 2025, which would remove on street parking near the project site. In addition, the Lambert Avenue cross street has overnight parking restrictions from 11 PM to 5 AM, which would discourage residents from parking their vehicles on the street.

## 4. TDM Monitoring and Reporting

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The purpose of this TDM plan is to reduce the overall parking demand generated by the proposed residential building. The property manager/Transportation Coordinator will be required to submit to the City an annual TDM monitoring report that identifies the TDM plan's effectiveness at achieving the parking demand reduction.

The initial TDM monitoring report for the project will be submitted two years after final occupancy. Subsequent reports will be prepared annually. Annual TDM monitoring reports will be prepared by a qualified third-party consultant. At a minimum, the first TDM monitoring report will be prepared by a professional transportation consultant. The property manager/Transportation Coordinator will coordinate with City staff for any additional reporting requirements.

Annual resident surveys, driveway counts, and parking counts will be conducted to determine the mode split, trip generation, and parking demand among residents and whether the existing TDM measures are effective. The driveway counts will be conducted on a typical weekday (Tuesday, Wednesday, or Thursday) when schools are in session. The parking counts will occur at midnight on a typical weekday (Tuesday to Thursday), as most residents would be parked at home during that time. The survey will include questions to the residents around their vehicle parking locations and frequency of driving to work in order to determine the parking demand. An example is provided in Appendix B; however, the actual survey will be determined in coordination with the City. There is no required percentage of participation for the survey; however, monitoring reports typically strive for maximum participation. The annual resident survey must include a question to the residents about their vehicle parking locations in order to determine whether spillover parking is occurring. This will be assessed by comparing the parking count/parking demand and parking provided at the site. The goal is to ensure that the parking demand is less than or equal to the parking supply. Additional TDM measures will be necessary if spillover parking occurs.

If the report indicates the project is not effective in reducing parking demand, the report will outline additional measures that must be adopted in the coming year to achieve the goal, along with an implementation schedule. The annual report to the City will also include a brief summary of the TDM measures that were in place during the preceding year, with an explanation of any changes or new programs.

Additional TDM measures could include, but are not limited to, the following:

- Financial subsidies for car share membership for residents, and
- Subsidize rideshare trips by site residents.



The individual preparing these reports to the City should coordinate with City staff on the City's reporting requirements.

## **Appendix A**

### **3265 El Camino Real Commuter Flier Example**

# 3265 El Camino Real Commuter Resources

## TRANSIT & SHUTTLES

[VTA](#)

[Caltrain](#)

[SamTrans](#)

[Transit Planner Tool](#)

[Free Transit Passes](#) (income eligible)

### VTA Bus Routes

[Route 22](#)

[Express Route 101](#)

[Express Route 102](#)

[Express Route 103](#)

[Rapid Route 522](#)

### Additional Service Routes

[Stanford Marguerite SE](#)

[Dumbarton Express DB](#)

## SERVICES & INCENTIVES

Free [Guaranteed Ride Home program](#)

Free [Lyft for Late-Night trips](#)

[Commute Planning](#)

Bay Area [Spare the Air Alert Notices](#)

## CARPOOL & VANPOOL

[Carpool Savings Calculator](#)

[Bay Area Carpool Program](#) – online carpool matching

\$500 monthly [511 Vanpool Group Subsidy](#)

\$400 monthly [VTA Vanpool Group Subsidy](#)

*(combine 511 and VTA vanpool subsidies and receive a **\$900** monthly group benefit.)*

## BICYCLE

Secure bicycle storage in the garage

[Bicycle Resources](#)

[Bike Love Program](#) - \$5 per day

[Bike to Work](#)

[Bikes on Transit](#)

[Palo Alto Bike Map](#)

[Santa Clara County Bikeways Map](#)

[San Mateo County Bike Map](#)

[San Francisco Bay Trail](#)

[Silicon Valley Bicycle Coalition](#)



## **Appendix B**

### **Residential Survey Example**

1. Do you own/lease a car?

- ☐ Yes
- ☐ No

2. Do you park on the property?

- ☐ Yes
- ☐ No

3. Are you able to always find parking on the property?

- ☐ Yes
- ☐ No

4. What method of transportation do you typically use to go to work/school?

- ☐ Car
  - ☐ Bike/Walk
  - ☐ Public Transportation (Bus, Train, Light Rail, etc.)
  - ☐ Carpool/Vanpool
  - ☐ Ride-Share Services (Uber, Lyft, etc.)
  - ☐ I typically work from home or don't work/go to school
  - ☐ Other (Please Specify)
- 

5. What method of transportation do you typically use to go to other points of interest (grocery, entertainment, etc)?

- ☐ Car
  - ☐ Bike/Walk
  - ☐ Public Transportation (Bus, Train, Light Rail, etc.)
  - ☐ Carpool/Vanpool
  - ☐ Ride-Share Services (Uber, Lyft, etc.)
  - ☐ I typically work from home or don't work/go to school
  - ☐ Other (Please Specify)
- 

6. Do you use the shared electric bikes provided by the property?

- ☐ Yes
  - ☐ No
  - If No, why not?
-

7. Do you use the free transit pass provided by the property?

- ☐ Yes
- ☐ No
- ☐ Unaware of the transit pass
- If No, why not?

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8. Is there anything preventing you from taking public transportation to work/school?

- ☐ I already take public transportation
- ☐ I bike/walk to work/school
- ☐ There are no public transportation options to/from my work/school
- ☐ Public transportation takes too long
- ☐ Other (Please Specify)

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9. What would encourage you to use an alternative to driving alone?

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10. Which of the transportation resources provided by the property are most helpful to you?

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# HEXAGON TRANSPORTATION CONSULTANTS, INC.

## Memorandum

**Date:** October 29, 2024

**To:** Jason Matlof, Half Dome Capital, LLC

**From:** Kai Ling Kuo, Jocelyn Lee

**Subject:** Parking Garage Circulation and Queue for 3265 El Camino Real in Palo Alto, California

Hexagon Transportation Consultants, Inc. has completed a review of the parking garage circulation for the proposed affordable housing project at 3265 El Camino Real in Palo Alto, California. The project would demolish the vacant building and construct 55 residential units in a 6-story building with 31 parking spaces (30 stacker parking spaces and 1 ADA parking space) on the ground level of the building. Vehicle access to the parking garage would be provided via a driveway/garage door on El Camino Real. The study evaluates whether passenger vehicles can access the parking spaces without maneuvering issues within the garage, specifically for the parking space located along the north edge of the site and the drive aisle. The queues were also evaluated to determine if it would have an effect on on-street and on-site circulation.

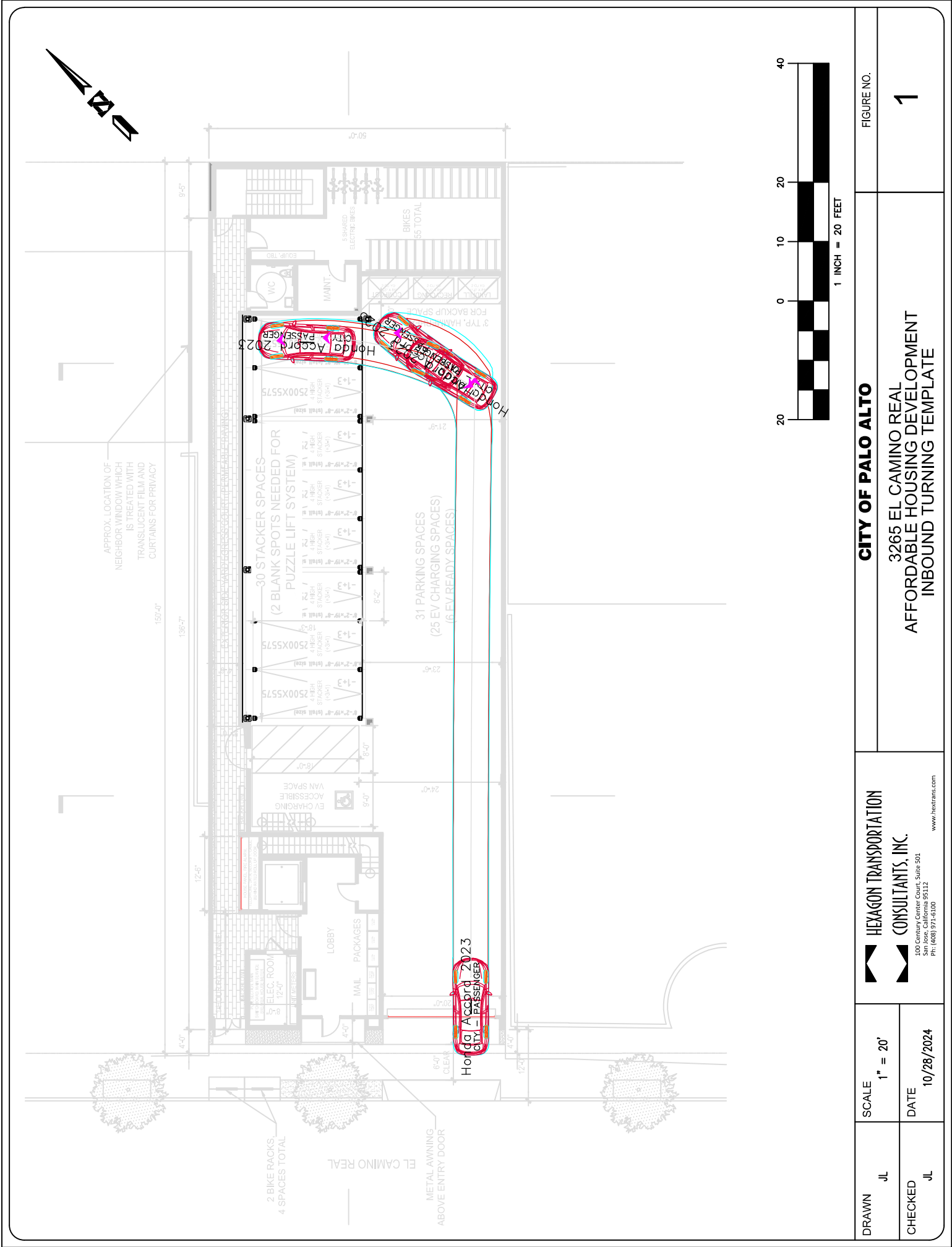
The project would provide a 23'-8" drive aisle. Per the Palo Alto Municipal Code, Section 18.54.070 Table 3, the City typically has a standard drive aisle of 25 feet for 90 degree parking with standard 8.5-foot wide stalls. The stacker parking spaces are 8.2 feet wide and 18 feet long. Therefore, the analysis is based on turning templates for a Honda Accord (16.5 feet long), which represent most mid-size and full-size passenger vehicles (14 to 17 feet long). While mid and full-sized vehicles can access parking spaces in all 8 parking columns, some columns will be easier than others. Specifically, tighter accessibility in the 7th and 8th columns mean that tenants assigned to those parking spaces will not be able to back their cars into the parking system in a reverse direction, and more turns will be required to enter the system to enter in the forward direction (see Figures 1 and 2). Consequently, the Owner/Developer will assign tenants with mid-sized vehicles to these (7th and 8th column) parking spaces to ensure that tenants with larger vehicles will have access to the spaces with a less restrictive turning radius (1st through 6th column).

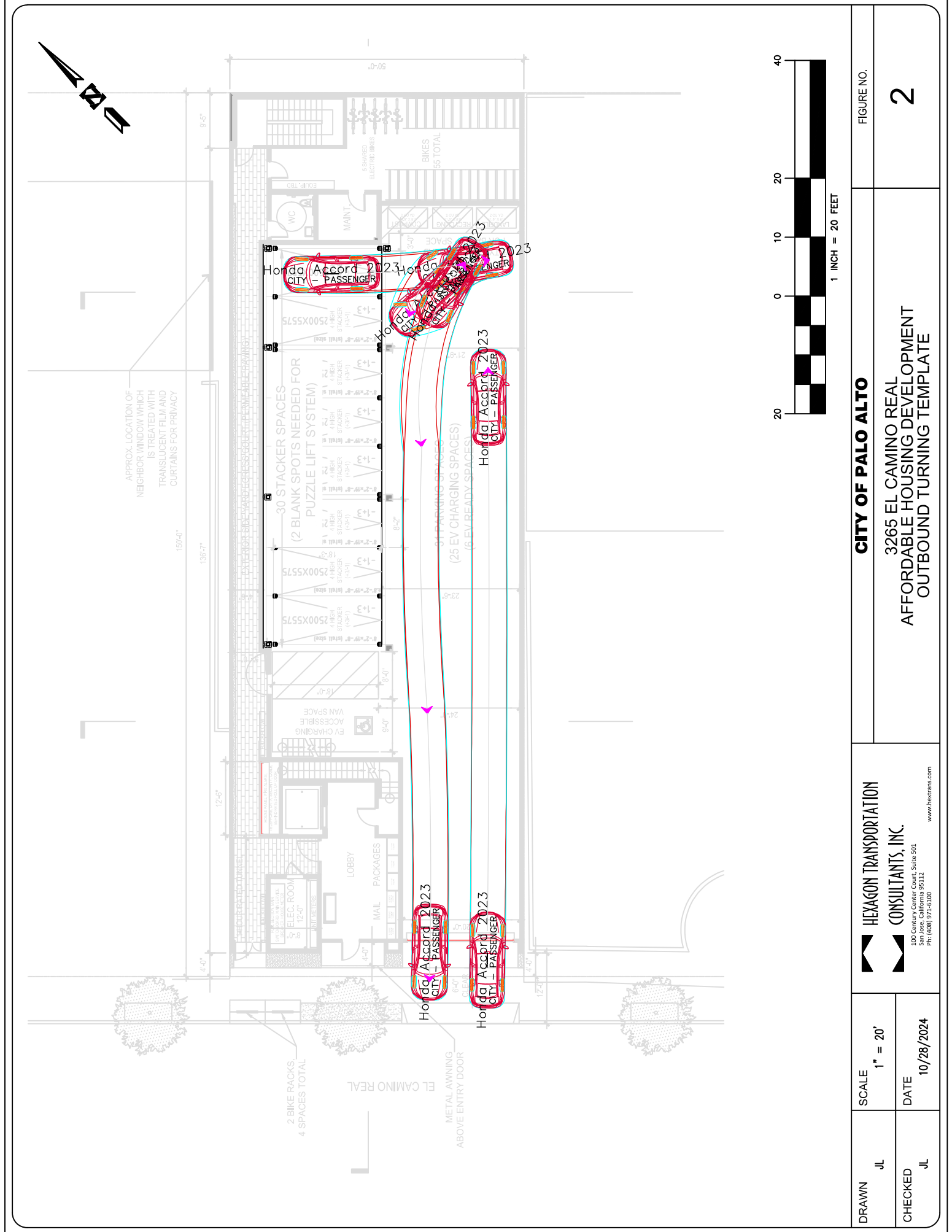
The project would provide a garage door at the garage entrance. Generally, adequate stacking space for one to two inbound vehicles (approximately 20 to 50 feet) should be provided between the sidewalk and any entry gates, on-site drive aisles, or on-site perpendicular parking spaces. This prevents vehicles from queuing onto the sidewalk or the street. The garage door to the parking garage is shown to be approximately 7 feet from the sidewalk and 14 feet from the curb. This would not provide enough room for one inbound vehicle. The garage door is expected to take 10 to 14 seconds to open. Therefore, residents accessing the parking garage would block the sidewalk briefly while waiting for the garage door to open. Although the inbound volume would be low (9 PM inbound trips during the peak hour), the project should install a speed garage door or keep the garage door open during the PM peak hours to ensure that the travel lane on El Camino Real is not blocked.


On-site vehicle queuing for outbound vehicles could potentially occur due to the security gate, a combination of the inherent unpredictability of vehicles exiting the site, and the random occurrence

of gaps in traffic along El Camino Real. However, given the estimated 11 AM outbound trips during the peak hour at the driveway, which calculates to about one outbound trip every five minutes, the probability of two or more outbound vehicles exiting the site at the same time would be low. In addition, the parking stackers would have a 60- to 90-second delay between cars exiting and being delivered. Thus, the outbound vehicle queue is not expected to affect on-site circulation.







DRAWN	JL	SCALE	1" = 20'	 <b>HEXAGON TRANSPORTATION CONSULTANTS, INC.</b> 100 Century Center Court, Suite 501 San Jose, California 95112 PH: (408) 971-6100 <a href="http://www.hextrans.com">www.hextrans.com</a>	<b>CITY OF PALO ALTO</b>	FIGURE NO.
CHECKED	JL	DATE	10/28/2024			
				3265 EL CAMINO REAL AFFORDABLE HOUSING DEVELOPMENT OUTBOUND TURNING TEMPLATE		